

However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

***In the Specification:***

Please amend the specification as follows:

In the specification, after the drawings, please delete the existing Sequence Listing (pages 1-322) and substitute therefor the paper copy of the substitute Sequence Listing for the subject application (pages 1-322) that is appended hereto.

In the specification, in the Brief Description of the Drawings beginning at page 20, line 7, please delete the existing brief descriptions of Figures 10-48 and substitute therefor the following brief descriptions of Figures 10-48.

---


**Figure 10** is a schematic depiction of the physical map and cloning sites (Figure 10A) (SEQ ID NO:185, SEQ ID NO:186, and SEQ ID NO:187), and the nucleotide sequence (Figure 10B) (SEQ ID NO:118), of the Entry Vector pENTR1A.

**Figure 11** is a schematic depiction of the cloning sites (Figure 11A) (SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, and SEQ ID NO:191) and the nucleotide sequence (Figure 11B) (SEQ ID NO:119) of the Entry Vector pENTR2B.

**Figure 12** is a schematic depiction of the cloning sites (Figure 12A) (SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, and SEQ ID NO:195) and the nucleotide sequence (Figure 12B) (SEQ ID NO:120) of the Entry Vector pENTR3C.

**Figure 13** is a schematic depiction of the cloning sites (Figure 13A) (SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, and SEQ ID NO:199) and the nucleotide sequence (Figure 13B) (SEQ ID NO:121) of the Entry Vector pENTR4.

**Figure 14** is a schematic depiction of the cloning sites (Figure 14A) (SEQ ID NO:200, SEQ ID NO:201, and SEQ ID NO:202) and the nucleotide sequence (Figure 14B) (SEQ ID NO:122) of the Entry Vector pENTR5.

 **Figure 15** is a schematic depiction of the cloning sites (Figure 15A) (SEQ ID NO:203, SEQ ID NO:204, and SEQ ID NO:205) and the nucleotide sequence (Figure 15B) (SEQ ID NO:123) of the Entry Vector pENTR6.

**Figure 16** is a schematic depiction of the cloning sites (Figure 16A) (SEQ ID NO:206, SEQ ID NO:207, and SEQ ID NO:208) and the nucleotide sequence (Figure 16B) (SEQ ID NO:124) of the Entry Vector pENTR7.

**Figure 17** is a schematic depiction of the cloning sites (Figure 17A) (SEQ ID NO:209, SEQ ID NO:210, and SEQ ID NO:211) and the nucleotide sequence (Figure 17B) (SEQ ID NO:125) of the Entry Vector pENTR8.

**Figure 18** is a schematic depiction of the cloning sites (Figure 18A) (SEQ ID NO:212, SEQ ID NO:213, and SEQ ID NO:214) and the nucleotide sequence (Figure 18B) (SEQ ID NO:126) of the Entry Vector pENTR9.

**Figure 19** is a schematic depiction of the cloning sites (Figure 19A) (SEQ ID NO:215, SEQ ID NO:216, and SEQ ID NO:217) and the nucleotide sequence (Figure 19B) (SEQ ID NO:127) of the Entry Vector pENTR10.

**Figure 20** is a schematic depiction of the cloning sites (Figure 20A) (SEQ ID NO:218, SEQ ID NO:219, and SEQ ID NO:220) and the nucleotide sequence (Figure 20B) (SEQ ID NO:128) of the Entry Vector pENTR11.

**Figure 21** is a schematic depiction of the physical map and the Trc expression cassette (Figure 21A) (SEQ ID NO:222) showing the promoter sequences at -35 and at -10 from the initiation codon, and the nucleotide sequence (Figure 21B-D) (SEQ ID NO:129), of Destination Vector pDEST1. This vector may also be referred to as pTrc-DEST1.

62  
**Figure 22** is a schematic depiction of the physical map and the His6 expression cassette (Figure 22A) (SEQ ID NO:223 and SEQ ID NO:224) showing the promoter sequences at -35 and at -10 from the initiation codon, and the nucleotide sequence (Figure 22B-D) (SEQ ID NO:130), of Destination Vector pDEST2. This vector may also be referred to as pHis6-DEST2.

**Figure 23** is a schematic depiction of the physical map and the GST expression cassette (Figure 23A) (SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, and SEQ ID NO:228) showing the promoter sequences at -35 and at -10 from the initiation codon, and the nucleotide sequence (Figure 23B-D) (SEQ ID NO:131), of Destination Vector pDEST3. This vector may also be referred to as pGST-DEST3.

**Figure 24** is a schematic depiction of the physical map and the His6-Trx expression cassette (Figure 24A) (SEQ ID NO:229 and SEQ ID NO:230) showing the promoter sequences at -35 and at -10 from the initiation codon and a TEV protease cleavage site, and

the nucleotide sequence (Figure 24B-D) (SEQ ID NO:132), of Destination Vector pDEST4.

This vector may also be referred to as pTrx-DEST4.

**Figure 25** is a schematic depiction of the attR1 and attR2 sites (Figure 25A) (SEQ ID NO:231 and SEQ ID NO:232), the physical map (Figure 25B), and the nucleotide sequence (Figure 25C-D) (SEQ ID NO:133), of Destination Vector pDEST5. This vector may also be referred to as pSPORT(+)-DEST5.

**Figure 26** is a schematic depiction of the attR1 and attR2 sites (Figure 26A) (SEQ ID NO:233 and SEQ ID NO:234), the physical map (Figure 26B), and the nucleotide sequence (Figure 26C-D) (SEQ ID NO:134), of Destination Vector pDEST6. This vector may also be referred to as pSPORT(-)-DEST6.

62  
**Figure 27** is a schematic depiction of the attR1 site, CMV promoter, and the physical map (Figure 27A) (SEQ ID NO:235), and the nucleotide sequence (Figure 27B-C) (SEQ ID NO:135), of Destination Vector pDEST7. This vector may also be referred to as pCMV-DEST7.

**Figure 28** is a schematic depiction of the attR1 site, baculovirus polyhedrin promoter, and the physical map (SEQ ID NO:236), and the nucleotide sequence (Figure 28B-D) (SEQ ID NO:136), of Destination Vector pDEST8. This vector may also be referred to as pFastBac-DEST8.

**Figure 29** is a schematic depiction of the attR1 site, Semliki Forest Virus promoter, and the physical map (Figure 29A) (SEQ ID NO:237), and the nucleotide sequence (Figure 29B-E) (SEQ ID NO:137), of Destination Vector pDEST9. This vector may also be referred to as pSFV-DEST9.

**Figure 30** is a schematic depiction of the attR1 site, baculovirus polyhedrin promoter, His6 fusion domain, and the physical map (Figure 30A) (SEQ ID NO:238 and SEQ ID NO:239), and the nucleotide sequence (Figure 30B-D) (SEQ ID NO:138), of Destination Vector pDEST10. This vector may also be referred to as pFastBacHT-DEST10.

**Figure 31** is a schematic depiction of the attR1 cassette containing a tetracycline-regulated CMV promoter and the physical map (Figure 31A) (SEQ ID NO:240), and the nucleotide sequence (Figure 31B-D) (SEQ ID NO:139), of Destination Vector pDEST11. This vector may also be referred to as pTet-DEST11.

**Figure 32** is a schematic depiction of the attR1 site, the start of the mRNA of the CMV promoter, and the physical map (Figure 32A) (SEQ ID NO:241), and the nucleotide sequence (Figure 32B-D) (SEQ ID NO:140), of Destination Vector pDEST12.2. This vector may also be referred to as pCMVneo-DEST12, as pCMV-DEST12, or as pDEST12.

**Figure 33** is a schematic depiction of the attR1 site, the  $\lambda P_L$  promoter, and the physical map (Figure 33A) (SEQ ID NO:242), and the nucleotide sequence (Figure 33B-C) (SEQ ID NO:141), of Destination Vector pDEST13. This vector may also be referred to as p $\lambda P_L$ -DEST13.


**Figure 34** is a schematic depiction of the attR1 site, the T7 promoter, and the physical map (Figure 34A) (SEQ ID NO:243), and the nucleotide sequence (Figure 34B-D) (SEQ ID NO:142), of Destination Vector pDEST14. This vector may also be referred to as pPT7-DEST14.

**Figure 35** is a schematic depiction of the attR1 site, the T7 promoter, and the N-terminal GST fusion sequence, and the physical map (Figure 35A) (SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, and SEQ ID NO:247), and the nucleotide sequence (Figure 35B-

D) (SEQ ID NO:143), of Destination Vector pDEST15. This vector may also be referred to as pT7 GST-DEST15.

**Figure 36** is a schematic depiction of the attR1 site, the T7 promoter, and the N-terminal thioredoxin fusion sequence, and the physical map (Figure 36A) (SEQ ID NO:248, SEQ ID NO:249, SEQ ID:250, and SEQ ID NO:251), and the nucleotide sequence (Figure 36B-D) (SEQ ID NO:144), of Destination Vector pDEST16. This vector may also be referred to as pT7 Trx-DEST16.

**Figure 37** is a schematic depiction of the attR1 site, the T7 promoter, and the N-terminal His6 fusion sequence, and the physical map (Figure 37A) (SEQ ID NO:252 and SEQ ID NO:253), and the nucleotide sequence (Figure 37B-D) (SEQ ID NO:145), of Destination Vector pDEST17. This vector may also be referred to as pT7 His-DEST17.

 **Figure 38** is a schematic depiction of the attR1 site and the p10 baculovirus promoter, and the physical map (Figure 38A) (SEQ ID NO:254), and the nucleotide sequence (Figure 38B-D) (SEQ ID NO:146), of Destination Vector pDEST18. This vector may also be referred to as pFBp10-DEST18.

**Figure 39** is a schematic depiction of the attR1 site, and the 39k baculovirus promoter, and the physical map (Figure 39A) (SEQ ID NO:255), and the nucleotide sequence (Figure 39B-D) (SEQ ID NO:147), of Destination Vector pDEST19. This vector may also be referred to as pFB39k-DEST19.

**Figure 40** is a schematic depiction of the attR1 site, the *polh* baculovirus promoter, and the N-terminal GST fusion sequence, and the physical map (Figure 40A) (SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, and SEQ ID NO:259), and the nucleotide

sequence (Figure 40B-D) (SEQ ID NO:148), of Destination Vector pDEST20. This vector may also be referred to as pFB GST-DEST20.

**Figure 41** is a schematic depiction of a 2-hybrid vector with a DNA-binding domain, the attR1 site, and the ADH promoter, and the physical map (Figure 41A) (SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, and SEQ ID NO:263), and the nucleotide sequence (Figure 41B-E) (SEQ ID NO:149), of Destination Vector pDEST21. This vector may also be referred to as pDB Leu-DEST21.


**Figure 42** is a schematic depiction of a 2-hybrid vector with an activation domain, the attR1 site, and the ADH promoter, and the physical map (Figure 42A) (SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, and SEQ ID NO:267), and the nucleotide sequence (Figure 42B-D) (SEQ ID NO:150), of Destination Vector pDEST22. This vector may also be referred to as pPC86-DEST22.

**Figure 43** is a schematic depiction of the attR1 and attR2 sites, the T7 promoter, and the C-terminal His6 fusion sequence, and the physical map (Figure 43A) (SEQ ID NO:268, SEQ ID NO:269, and SEQ ID NO:270), and the nucleotide sequence (Figure 43B-D) (SEQ ID NO:151), of Destination Vector pDEST23. This vector may also be referred to as pC-term-His6-DEST23.

**Figure 44** is a schematic depiction of the attR1 and attR2 sites, the T7 promoter, and the C-terminal GST fusion sequence, and the physical map (Figure 44A) (SEQ ID NO:271, SEQ ID NO:272, and SEQ ID NO:273), and the nucleotide sequence (Figure 44B-D) (SEQ ID NO:152), of Destination Vector pDEST24. This vector may also be referred to as pC-term-GST-DEST24.

**Figure 45** is a schematic depiction of the attR1 and attR2 sites, the T7 promoter, and the C-terminal thioredoxin fusion sequence, and the physical map (Figure 45A) (SEQ ID NO:274, SEQ ID NO:275, and SEQ ID NO:276), and the nucleotide sequence (Figure 45B-D) (SEQ ID NO:153), of Destination Vector pDEST25. This vector may also be referred to as pC-term-Trx-DEST25.

**Figure 46** is a schematic depiction of the attR1 site, the CMV promoter, and an N-terminal His6 fusion sequence, and the physical map (Figure 46A) (SEQ ID NO:277 and SEQ ID NO:278), and the nucleotide sequence (Figure 46B-D) (SEQ ID NO:154), of Destination Vector pDEST26. This vector may also be referred to as pCMV-SPneo-His-DEST26.

 **Figure 47** is a schematic depiction of the attR1 site, the CMV promoter, and an N-terminal GST fusion sequence, and the physical map (Figure 47A) (SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, and SEQ ID NO:282), and the nucleotide sequence (Figure 47B-D) (SEQ ID NO:155), of Destination Vector pDEST27. This vector may also be referred to as pCMV-Spneo-GST-DEST27.

**Figure 48** is a depiction of the physical map (Figure 48A) (SEQ ID NO:283), the cloning sites (Figure 48B), and the nucleotide sequence (Figure 48C-D) (SEQ ID NO:156), for the attB cloning vector plasmid pEXP501. This vector may also be referred to equivalently herein as pCMV•SPORT6, pCMVSPORT6, and pCMVSPORT6.

---



In the specification, in the Brief Description of the Drawings beginning at page 26, line 9, please delete the existing brief description of Figure 55 and substitute therefor the following brief description of Figure 55.

**Figure 55** depicts the attB1 site (SEQ ID NO:284 and SEQ ID NO:285), and the physical map, of an Entry Clone (pENTR7) of CAT subcloned into the Destination Vector pDEST2 (Figure 22).

E3